Redefining Creativity: The Impact of Artificial Intelligence on Music, Composition, and Production

إعادة تعريف الإبداع: تأثير الذّكاء الاصطناعيّ في الموسيقى والتّأليف والإنتاج

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Abstract

This study examines how artificial intelligence (AI) is reshaping musical creativity across composition, production, and audience perception. Drawing on cognitive science, neuroscience, classical theories of creativity, and design thinking, the research investigates whether AI functions primarily as a technical extension of human creativity or as an emerging creative collaborator. Using a mixed-methods design that combines surveys, listening experiments, and semi-structured interviews with 100 participants aged 18 to 50, the study reveals a complex and evolving relationship between human and algorithmic creativity. While participants recognize AI's effectiveness in melody generation, production support, and personalized recommendation, emotional depth, intentional originality, and authentic artistic expression remain strongly associated with human agency. Interviews with professional musicians further indicate that AI is

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valued as a source of inspiration and efficiency rather than as a replacement for human creativity, alongside persistent concerns regarding authorship and professional identity. Overall, the findings suggest that AI does not displace musical creativity but rather reconfigures it as a hybrid process in which human intuition and algorithmic generation interact. This hybrid model challenges traditional definitions of musical creativity and highlights the relevance of design studies for understanding creative practices in human–AI systems.

Keywords: Artificial intelligence; musical creativity; composition and production; design thinking; human–AI interaction; audience perception.

المستخلص

تتناول هذه الدّراسة كيف يُعيد الذّكاء الاصطناعيّ تشكيل الإبداع الموسيقي في مجالات التّأليف والإنتاج وإدراك الجمهور. وبالاستناد إلى العلوم المعرفيّة وعلم الأعصاب والنّظريّات الكلاسيكيّة للإبداع والتّفكير التّصميميّ، تبحث هذه الدّراسة فيما إذا كان الذّكاء الاصطناعيّ يعمل في المقام الأوّل كامتداد تقنيّ للإبداع البشريّ أم كشريك إبداعيّ ناشئ. باستخدام تصميم مختلط يجمع بين الاستطلاعات وتجارب الاستماع والمقابلات شبه المنظمة مع 100 مشارك تتراوح أعمارهم بين 18 و50 عامًا، تكشف الدّراسة عن علاقة معقدة ومتطوّرة بين الإبداع البشريّ والإبداع الخوارزميّ. في حين يدرك المشاركون فعالية الذّكاء الاصطناعيّ في توليد الألحان ودعم الإنتاج والتّوصيات الشّخصيّة، إلا أنّ العمق العاطفيّ والأصالة المتعمدة والتّعبير الفنّيّ الأصيل لا تزال مرتبطة ارتباطًا وثيقًا بالقدرة البشريّة. تُشير المقابلات مع موسيقيين محترفين أيضًا إلى أنّ الذّكاء الاصطناعيّ يُنظر إليه كونه مصدرًا للإلهام والكفاءة وليس بديلًا للإبداع البشريّ، إلى جانب المخاوف المستمرة بشأن حقوق التّأليف والهويّة المهنيّة. وبشكل عام، تشير النّتائج إلى أنّ الذّكاء الاصطناعيّ لا يحلّ محلّ الإبداع الموسيقي، بل يسهم في إعادة تشكيله كعملية هجينة، يتفاعل فيها الحدس البشريّ والتّوليد الخوارزميّ. يتحدّى هذا النّموذج الهجين التّعريفات التّقليديّة للإبداع الموسيقي ويسلّط الضوء على أهمية دراسات التّصميم لفهم الممارسات الإبداعيّة في أنظمة الإنسان والذّكاء الاصطناعيّ.

الكلمات المفتاحيّة: الذّكاء الاصطناعيّ؛ الإبداع الموسيقي؛ التّأليف والإنتاج؛ التّفكير التّصميميّ؛ التّفاعل بين الإنسان والذّكاء الاصطناعيّ؛ تصوّر الجمهور.

Introduction

Music has long functioned as a central mode of human expression, mediating emotion, identity, memory, and culture. Across history, technological developments, from notation systems and mechanical instruments to recording technologies and digital audio workstations, have continually reshaped musical practices without fundamentally displacing human creativity. In recent years, however, artificial intelligence (AI) has introduced a qualitatively different shift. Contemporary AI systems are no longer limited to assisting production or distribution; they increasingly participate in generative processes traditionally associated with human composition, raising profound questions about creativity, authorship, and artistic agency.

AI-driven music systems, such as Google's Magenta, OpenAI's MuseNet, and AIVA, are now capable of generating melodies, harmonies, arrangements, and even full compositions across multiple genres (Google Magenta Team, 2016; OpenAI, 2019; AIVA Technologies, 2016). These developments challenge long-standing assumptions that creativity is an exclusively human capacity grounded in intention, emotion, and lived experience. As machine-learning models analyze vast musical datasets and produce stylistically coherent outputs, the boundaries between tool, collaborator, and creative agent become increasingly blurred. This transformation raises a fundamental question: **How should musical creativity be understood in contexts where human and algorithmic processes are deeply intertwined**?

While existing scholarship has explored AI's technical capabilities in music composition and production, less attention has been paid to how creativity itself is being redefined through human–AI interaction. In particular, there is a need to examine how musicians and listeners conceptualize creativity in AI-assisted music, how they evaluate emotional authenticity and originality, and how these perceptions relate to broader theoretical models of musical creativity. Addressing these issues requires moving beyond purely techno-

logical assessments toward an interdisciplinary framework that integrates creativity theory, sociocultural perspectives, and empirical inquiry.

Accordingly, this study adopts an **empirically informed conceptual approach** to investigate how artificial intelligence is reshaping musical creativity in the realms of composition, production, and listening practices. Rather than asking whether AI can be creative in a human sense, the study examines how creativity is redistributed across hybrid systems involving human intention, algorithmic generation, and cultural interpretation. Empirical data are used not to measure creativity as an isolated variable, but to interrogate and refine existing theoretical understandings of creativity in music.

The central research question guiding this study is: **How is musical creativity being redefined through human–AI interaction in music composition and production?**

To address this question, the study explores four sub-questions:

1. How do audiences and professional musicians conceptualize creativity in AI-assisted music?
2. To what extent is AI perceived as a technical tool, a creative collaborator, or an autonomous agent?
3. Which dimensions of musical creativity (emotional, technical, aesthetic, and social) are perceived as most affected by AI involvement?
4. How do these perceptions challenge or extend human-centered theories of musical creativity?

The study employs a mixed-methods design combining surveys, a listening experiment, and semi-structured interviews with musicians and listeners. By situating empirical findings within contemporary theories of creativity, AI, and design thinking, the research contributes to ongoing debates about hybrid creativity and the evolving relationship between humans and intelligent technologies in artistic domains. A literature review will be the main pillar to answer these questions.

1. Musical Creativity in the Age of Artificial Intelligence: Theoretical Perspectives

This chapter will examine classical and contemporary theories of musical creativity, and consider how these frameworks intersect with recent developments in AI. This theoretical inquiry is central to understanding how AI reshapes creative agency, authorship, and meaning within contemporary musical practices.

1.1 Musical Creativity as Plural and Situated

Contemporary research increasingly conceptualizes musical creativity as a plural, situated, and socially embedded phenomenon rather than a singular cognitive trait. Burnard's influential framework of musical creativities emphasizes that creativity manifests differently across contexts, practices, and cultural settings, encompassing professional composition, improvisation, everyday music-making, listening, and technological mediation (Burnard, 2012, pp.3-7). From this perspective, creativity is not limited to the act of composing original works but includes interpretive, curatorial, and experiential dimensions.

This plural understanding is particularly relevant in digital environments where listeners actively engage with music through playlists, recommendation systems, and interactive platforms. Such practices complicate traditional distinctions between creator and consumer, suggesting that creativity may emerge across a network of actions involving selection, recombination, and interpretation. In the context of AI-generated music, these dynamics invite reconsideration of where creativity is located and how it is recognized.

1.2 Human-Centered Models of Musical Creativity

Classical theories of creativity have largely emphasized human cognition, intentionality, and emotional engagement. Boden's model of creativity (1998, pp. 347-350), which distinguishes combinational, exploratory, and transformational creativity, has been particularly influential in framing cre-

ative processes as operations within conceptual spaces. In music, such processes are closely linked to cognitive expectations, emotional resonance, and embodied performance.

Psychological and neuroscientific research further reinforces the human-centered view of creativity. Studies in the psychology of music highlight the role of affect, memory, anticipation, and reward in musical experience, while neuroscientific research associates musical creativity with distributed neural networks involved in prediction, emotion, and motor coordination (Daikoku, 2025; Villarreal et al., 2013). These perspectives underscore the deeply embodied and affective nature of musical creativity, often positioning it as inseparable from lived human experience.

William Forde Thompson (2014, pp.28-29) notes that creativity in music arises from complex interactions between cognitive processing (expectations, schemas) and emotional responses. This provides a comprehensive framework situating creativity within the psychology of music perception and affect. Daniel Levitin (2006, pp.185-195) further argued that musical creativity emerges from the interplay of memory, expectation, and pleasure, with music engaging brain networks responsible for prediction and reward. Such models foreground creativity as an embodied and affective process, raising critical questions about how creativity should be understood when musical outputs are generated or mediated by non-human systems.

However, the emergence of AI-generated music places pressure on strictly human-centered models. When listeners perceive algorithmically generated music as coherent, aesthetically engaging, or emotionally evocative, questions arise as to whether creativity should be defined by internal experience, observable output, or cultural interpretation.

1.3 Artificial Intelligence and Computational Creativity in Music

The growing field of computational creativity explores the extent to which machines can produce outputs that are novel and valuable within a given domain. In music, AI systems based on deep learning architectures have

demonstrated remarkable capacity for generating stylistically consistent compositions by learning statistical patterns from large datasets (Colton et al., 2011). Reviews of AI-based music composition highlight both technical advances and conceptual limitations, particularly regarding originality, intentionality, and emotional depth.

Importantly, recent scholarship suggests a shift away from asking whether AI is creative toward examining **how creativity emerges through hybrid systems**. AI-generated music is increasingly understood as the product of interactions between human design choices, training data, algorithmic processes, and cultural frameworks of evaluation. From this perspective, AI does not replace human creativity but participates in its reconfiguration.

1.4 Post-Human and Distributed Creativity

Post-human and sociomaterial theories offer further tools for understanding creativity in AI-mediated contexts. Scholars working in this tradition argue that creativity is distributed across networks of humans, technologies, cultural norms, and institutions. Actor–Network Theory, in particular, conceptualizes non-human entities as actants that shape outcomes without possessing intention or consciousness (Latour, 2005, pp. 10-11; Suchman, 2007, pp.238-239).

In music, this approach has been used to examine how technologies mediate creative practice, authorship, and aesthetic values. Applying this lens to AI suggests that creativity may be understood as an emergent property of human–machine assemblages rather than as an attribute of a single agent. This perspective aligns with recent discussions of co-creation, shared authorship, and hybrid agency in both music and design studies (Galanter, 2012; Boden & Edmonds, 2009).

1.5 Conceptual Framework

Drawing on these perspectives, the present study conceptualizes musical creativity as a **multidimensional construct** comprising:

- emotional expression and affective resonance,
- originality and novelty,
- technical production and iteration,
- authorship and agency,
- cultural and social meaning.

These dimensions form the analytical framework through which empirical findings are interpreted, enabling examination of how AI reshapes, not replaces, musical creativity. Building on the theoretical perspectives outlined above, the following section presents the methodological framework adopted for this study.

2. Methodology

2.1 Research Design

This study employs a **convergent mixed-methods design**, integrating quantitative and qualitative data to explore perceptions of musical creativity in AI-mediated contexts. The combination of surveys, a listening experiment, and semi-structured interviews allows for triangulation of findings. It provides both breadth and depth in understanding how audiences and professional musicians conceptualize creativity.

2.2 Participants and Sampling

A total of 100 participants were recruited for the study, comprising musicians and non-musicians. A purposive sampling strategy was employed to capture a broad range of perspectives on musical creativity, including both professional engagement in music and everyday listening practices. Musicians were defined as individuals with formal training or sustained experience in performance, composition, or music production, while non-musicians were included to reflect general audience perspectives.

Participants ranged in age from 18 to 50 years. This range was selected to represent populations actively engaged with digital music platforms

and contemporary modes of music consumption, including algorithmic recommendation systems. Nevertheless, variability in familiarity with artificial intelligence technologies across age groups was anticipated and taken into account during data interpretation.

The inclusion of participants with differing levels of musical expertise and a relatively wide age range results in a heterogeneous sample. This heterogeneity was intentionally incorporated into the research design to enable comparative analysis across distinct experiential profiles, particularly between expert practitioners and general listeners, as well as between individuals with varying degrees of exposure to AI-mediated environments. Analytical attention was therefore given to subgroup distinctions in order to support a more nuanced interpretation of the data.

At the same time, this sampling strategy introduces certain limitations. Differences in musical training and technological familiarity may influence how participants perceive and evaluate AI-generated music, potentially affecting the comparability of responses across groups. While the study addresses this variability through interpretive and comparative analysis, the findings should be understood as context-dependent rather than universally generalizable. Future research may benefit from more controlled sampling designs or stratified comparisons focusing on specific populations.

2.3 Data Collection Instruments

Survey

The survey gathered quantitative data on listening habits, emotional engagement with music, perceptions of AI-generated music quality, and attitudes toward AI's role in creativity. Survey items were designed to probe multiple dimensions of musical creativity, including emotional authenticity, originality, and perceived agency.

Listening Experiment

Participants took part in a listening experiment involving musical excerpts generated by AI and by human composers. Without being informed of the source, participants evaluated the excerpts in terms of emotional impact, aesthetic preference, and perceived authenticity. This instrument was intended to examine how listeners assess creativity independently of authorship knowledge.

Semi-Structured Interviews

In-depth interviews were conducted with professional musicians and composers to explore experiential and ethical dimensions of AI-assisted creativity. Interview questions focused on authorship, collaboration, emotional expression, professional identity, and concerns surrounding AI's integration into music production.

2.4 Data Analysis

Quantitative survey data were analyzed descriptively to identify patterns in perceptions and attitudes. Qualitative interview data were analyzed thematically, with themes derived from both the literature and emergent patterns in participant responses. Findings from different data sources were integrated during interpretation to provide a cohesive understanding of hybrid musical creativity.

3. Findings: Perceptions of Musical Creativity in Human–AI Interaction

This section presents the empirical findings of the study, organized around key dimensions of musical creativity identified in the literature review: emotional authenticity, originality, technical production, authorship, and professional identity. Rather than reporting survey results sequentially, the findings are structured thematically to highlight how participants perceive the redefinition of creativity in AI-mediated musical contexts.

3.1 Emotional Authenticity and the Persistence of Human Creativity

Across data sources, emotional expression emerged as the most consistently human-associated dimension of musical creativity. Survey responses indicate that music plays a central emotional role in participants' everyday lives, with the majority reporting that they use music for motivation, inspiration, relaxation, or emotional regulation. When participants reflected on their favorite music, emotions such as happiness, relaxation, and feeling energized were most frequently reported, underscoring the affective centrality of musical experience.

When comparing AI-generated music with human-composed works, participants expressed considerable skepticism regarding AI's capacity to evoke comparable emotional depth. While a minority perceived AI-generated music as equal or superior in quality, a substantial proportion rated it as worse or expressed uncertainty. Interview data provide further insight into these perceptions: professional musicians repeatedly emphasized that emotional authenticity is rooted in lived experience, intentional expression, and narrative context –qualities they perceive as inaccessible to current AI systems.

These findings suggest that, for both listeners and practitioners, emotional depth remains a defining marker of musical creativity and a key criterion by which AI-generated music is evaluated. Even when AI-produced music is perceived as technically proficient, participants often differentiate it from human creativity on affective grounds, reinforcing the persistence of human-centered conceptions of creativity at the emotional level.

3.2 Originality, Novelty, and Algorithmic Generation

Perceptions of originality reveal a more ambivalent stance toward AI-generated music. Survey data indicate that participants are divided in their assessments of AI's creative novelty: while some acknowledge AI's ability to generate new musical combinations, many question whether such outputs constitute genuine originality rather than recombination of existing styles.

The listening experiment further highlights this ambiguity. A majority of participants believed they could identify whether a piece of music was AI-generated, suggesting that listeners perceive stylistic or structural markers associated with algorithmic composition. However, this perceived detectability did not always correlate with negative aesthetic judgments, indicating that originality is not assessed solely on authorship but also on perceived coherence and engagement.

Interviewees articulated a distinction between novelty and originality. AI was often credited with producing unexpected harmonic progressions, rhythmic variations, or stylistic blends that could inspire human composers. Nevertheless, participants tended to reserve the concept of originality for intentional acts of creative rupture, moments where artists consciously break conventions or embed personal meaning. In this sense, AI was viewed as capable of supporting combinational creativity but limited in producing transformational creativity as understood in human-centered frameworks.

3.3 AI as Technical Enhancer Versus Creative Partner

Findings consistently indicate that participants primarily associate AI with technical and supportive aspects of music-making rather than with core creative authorship. Survey responses show that AI is most widely perceived as influential in music production processes, personalized recommendation systems, and voice or sound recognition technologies. In contrast, composition and songwriting, traditionally central to musical creativity, were less frequently identified as primary areas of AI impact.

Professional musicians reinforced this distinction in interviews, describing AI as a powerful tool for accelerating workflows, generating preliminary ideas, or refining production elements. Several participants characterized AI as an “assistant” or “collaborative resource” rather than a creator in its own right. Importantly, AI’s value was often framed in terms of efficiency and experimentation rather than artistic vision.

At the same time, some interviewees described moments where AI-generated outputs disrupted habitual creative patterns, prompting new directions or aesthetic choices. These experiences suggest that while AI is not widely recognized as an autonomous creative agent, it may function as a catalyst within hybrid creative systems, expanding the range of possibilities available to human composers.

3.4 Authorship, Ethics, and Professional Identity

Concerns surrounding authorship and professional identity emerged prominently in both survey responses and interviews. Participants expressed unease regarding ownership of AI-generated music, questioning who should be credited when creative outputs result from human–AI collaboration. These concerns were particularly pronounced among professional musicians, who articulated anxieties about the potential devaluation of human labor and artistic expertise.

Survey data indicate that participants anticipate both positive and negative impacts of AI on the future of the music industry, with a slight predominance of concern over optimism. Interviewees linked these concerns to fears of cultural homogenization, loss of artistic individuality, and the erosion of professional opportunities for composers and producers.

Ethical considerations extended beyond economic implications. Several musicians emphasized the importance of transparency in acknowledging AI's role in music creation, as well as the responsibility to respect cultural sources embedded in training data. These reflections point to an emerging ethical framework in which creativity is understood not only as the production of novel outputs but also as a practice embedded in social responsibility and cultural meaning.

3.5 Toward a Hybrid Model of Musical Creativity

Taken together, the findings indicate that participants do not perceive AI as replacing human creativity, but rather as reshaping its conditions. Emotional

authenticity and intentional originality remain strongly associated with human agency, while AI is valued for its capacity to support technical processes, inspire experimentation, and expand creative possibilities.

This pattern suggests the emergence of a **hybrid model of musical creativity**, in which creative agency is distributed across human intention, algorithmic generation, and cultural interpretation. Within this model, musicians increasingly assume the role of curators, editors, and interpreters of machine-generated material, negotiating meaning at the intersection of human experience and computational processes (McCormack et al., 2019; Candy & Ferguson, 2014).

These findings provide the empirical foundation for the discussion that follows, in which the implications of hybrid creativity are interpreted through theories of musical creativity, post-human agency, and design thinking.

4. Discussion: Rethinking Musical Creativity in Human–AI Systems

This study set out to examine how musical creativity is being redefined through human–AI interaction in music composition, production, and listening practices. By integrating empirical findings with contemporary theories of creativity, this discussion advances the argument that AI does not simply augment or threaten creativity, but contributes to a reconfiguration of creative agency, authorship, and value in music.

4.1 Emotional Authenticity and the Endurance of Human-Centered Creativity

One of the most consistent findings across the study is the continued centrality of emotional authenticity in participants' understanding of musical creativity. Both listeners and professional musicians strongly associated creativity with emotional depth, intentional expression, and lived experience, dimensions they perceived as fundamentally human. This aligns with psychological and neuroscientific accounts that situate musical creativity within embodied cognition, affective processing, and autobiographical memory.

From a theoretical perspective, these findings reinforce human-centered models of creativity, particularly those that emphasize emotion as a core criterion of creative value. While AI-generated music may achieve technical coherence or stylistic plausibility, participants' reluctance to attribute emotional authenticity to algorithmic systems suggests that creativity is evaluated not solely on output but on perceived intentionality and narrative grounding.

At the same time, this resistance to recognizing AI as emotionally creative should not be interpreted as a static or universal stance. Rather, it reflects prevailing cultural expectations about authorship and expression, which may evolve as exposure to AI-generated music increases. The findings thus point to a tension between enduring human-centered conceptions of creativity and emerging hybrid practices that challenge these boundaries.

4.2 Originality, Combinational Creativity, and the Limits of Algorithmic Innovation

Participants' ambivalent perceptions of originality in AI-generated music resonate strongly with Boden's distinction between combinational, exploratory, and transformational creativity (Boden, 1998). The data suggest that AI is widely recognized as capable of combinational creativity, reconfiguring learned musical elements into new patterns, while being perceived as limited in producing transformational creativity that deliberately redefines stylistic or cultural norms.

This distinction is crucial. While AI-generated novelty may be technically impressive, participants often distinguished between surface-level variation and deeper forms of originality, such as intentional rule-breaking or personal expression. In doing so, they implicitly reproduced a hierarchy of creativity that privileges meaning-making over pattern generation.

However, this hierarchy becomes less stable when AI-generated outputs are integrated into human creative workflows. Several musicians described how algorithmic novelty disrupted habitual patterns and prompted new creative directions. These accounts suggest that while AI may not independently

enact transformational creativity, it can catalyze such transformations within human–AI assemblages. Creativity, in this sense, emerges relationally rather than residing exclusively in either human or machine.

4.3 Distributed Agency and Hybrid Creativity

The findings strongly support theoretical models that conceptualize creativity as distributed across sociotechnical systems. Participants' descriptions of AI as a tool, assistant, collaborator, or provocateur reflect a shift away from singular authorship toward shared creative agency. This aligns with post-human and Actor–Network Theory perspectives (Lezaun, 2017), which understand non-human entities as actants that shape outcomes without possessing consciousness or intention.

Within this framework, AI systems participate in creative processes by influencing form, structure, and possibility spaces, even as humans retain responsibility for meaning, selection, and evaluation. Creativity thus becomes an emergent property of interaction rather than an intrinsic attribute of a single agent.

This distributed view also helps reconcile participants' seemingly contradictory positions: AI is simultaneously perceived as non-creative in an emotional sense and creatively impactful in practice. Such ambivalence reflects not confusion, but a transitional cultural moment in which established definitions of creativity are being renegotiated.

4.4 Design Thinking as an Interpretive Framework for Human–AI Creativity

Design thinking offers a particularly productive lens for interpreting these findings. Core principles of design thinking, divergent ideation, iterative prototyping, testing, and refinement, closely mirror the ways musicians described working with AI systems. Algorithmic generation functions as a form of rapid ideation, while human composers engage in evaluative and interpretive convergence, shaping outputs according to aesthetic and emotional goals.

From this perspective, AI does not compete with human creativity but amplifies the generative phase of the creative process. Musicians assume roles analogous to designers, curating and refining machine-generated material within culturally meaningful frameworks. This reframing situates musical creativity within broader design epistemologies and underscores the relevance of design studies for understanding AI-mediated art.

Importantly, design thinking also foregrounds ethical responsibility. Decisions about authorship, transparency, and cultural sensitivity are not technical issues alone but design choices with social consequences. The findings suggest that as creativity becomes increasingly hybrid, ethical literacy must become an integral component of creative practice and education.

4.5 Implications for Music and Design Education

The reconfiguration of creativity identified in this study carries significant implications for education. Participants' emphasis on emotional authenticity suggests that pedagogical approaches must continue to prioritize interpretation, narrative, and embodied expression, even as students engage with AI tools. At the same time, the growing role of AI in ideation and production highlights the need for critical digital literacy, enabling learners to understand how algorithms shape creative possibilities.

Integrating AI into music and design education should therefore focus not on replacing traditional skills but on expanding creative repertoires. Encouraging students to critically engage with AI-generated material, as collaborators rather than passive consumers, can foster reflective, ethical, and innovative practices.

5. Conclusion and Contributions

This study has examined how artificial intelligence is reshaping musical creativity from the perspectives of listeners and professional musicians. By integrating empirical data with theories of musical creativity, computational creativity, and post-human agency, the research demonstrates that AI is

neither a simple extension of human creativity nor its replacement. Instead, it contributes to the emergence of hybrid creative systems in which agency, authorship, and meaning are distributed across human and technological actors.

The findings reveal that emotional authenticity and intentional originality remain strongly associated with human creativity, while AI is valued for its capacity to support ideation, experimentation, and technical production. These dynamics suggest a redefinition of the composer's role, from sole originator to curator, mediator, and designer of creative processes. Creativity, in this sense, is no longer located exclusively in the human mind but unfolds through interaction, negotiation, and cultural interpretation.

Despite these contributions, the study presents certain limitations related to sampling and participant variability. The inclusion of both musicians and non-musicians, alongside a relatively broad age range (18–50), introduces heterogeneity in terms of musical expertise and familiarity with artificial intelligence technologies. These differences may shape how participants perceive, interpret, and evaluate AI-generated music, potentially affecting the comparability of responses across groups. Although analytical attention was given to subgroup distinctions, the findings should be understood as context-dependent rather than fully generalizable across populations. In addition, varying levels of exposure to AI-mediated environments may have influenced participants' conceptualizations of creativity, particularly among those less engaged with emerging technologies.

Contributions of the Study

This article makes four key contributions:

1. It provides empirical evidence for a **hybrid model of musical creativity**, grounded in audience and professional perceptions.
2. It extends existing theories of musical creativity by integrating human-centered, computational, and post-human perspectives.

3. It positions **design thinking** as a valuable interpretive framework for understanding AI-mediated creative practices in music.
4. It offers pedagogical insights for music and design education in contexts where AI is increasingly embedded in creative work.

Building on these limitations, future research should explore more controlled or stratified sampling strategies, focusing on specific populations (e.g., professional composers or digitally native listeners), and consider longitudinal approaches to examine how perceptions of AI-generated music evolve with increased exposure and technological familiarity. By engaging with these questions, scholars and practitioners can better navigate the evolving landscape of creativity in an age of intelligent machines, ensuring that technological innovation continues to enrich, rather than diminish, the human meaning of music.

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